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THE
AMERICAN PRACTITIONER:

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

EDITED BY

DAVID W. YANDELL, M. D.

Professor of Clinical Surgery in the University of Louisville,

AND

THEOPHILUS PARVIN, M. D.

Professor of the Medical and Surgical Diseases of Women in the University of Louisville.



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[FORMERLY "WESTERN JOURNAL OF MEDICINE."]

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THE AMERICAN PRACTITIONER.

[FORMERLY "WESTERN JOURNAL OF MEDICINE,"]

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Vol. I.

LOUISVILLE, MARCH, 1870.

No. 3.

THE VACCINATION QUESTION.

BY E. R. PALMER, M. D.,

Professor of Physiology in the University of Louisville.

Probably no question connected with the science of medicine has, within the last fifty or seventy-five years, been invested with greater interest, received more attention, or been apparently more fully settled, than that of vaccination. The immense decrease of deaths from variola, and the entire immunity from that dire disease enjoyed by so large a proportion of communities where vaccination is performed, both point to that operation as one of the most certain in its results at our command as physicians. Owing to its great importance and usefulness as a prophylactic, much has been written and still more said that has tended to make perfect our knowledge of the subject. There are, however, questions connected with it about which there still exist doubt and variance in the minds of physicians, some of which are of late years exciting increasing interest and study, and all of which demand the

investigation of the practitioner. These may in the main be summed up as follows:

Does the vaccine virus deteriorate by passing successively through a large number of human beings?

Does the protective power of vaccination "run out," and is revaccination ever useful?

Can constitutional diseases or diatheses be transmitted from person to person by the use of vaccine lymph from the vesicle of a person laboring under such disorders?

Is there greater protection from multiple puncture than from single?

These and some other minor points will be dealt with in detail in this article.

The greatly increasing prevalence of modified small-pox, or varioloid as it is more commonly called, within the last few years has led to a very general belief that the virus now in use has lost its original force, and that the cause of this deterioration is due to its too great removal from the original source. Indeed the demand has become quite imperative in some quarters for return to the cow for material.

That such a measure is wholly useless has been clearly established, and owing to the inconveniences surrounding it this is well. There seems to be a species of forgetfulness on the part of those reasoners who clamor for this reversion. They do not remember that vaccine lymph, like every other organic product, is subject to certain laws which, unless evaded, will result in its degeneration. They evidently have forgotten too when they demand in vaccination a never-failing preventive of variola that Jenner himself did not assert its infallibility, but only claimed for it in its perfection an equality with the disease itself as a prophylactic, saying that as second attacks of variola may and do occur, so may and does variola attack individuals after perfect vaccination, though in both instances such a result is happily rare. From the beginning Jenner warned his followers against the use of unselected

lymph, and in those instances where his rules have been rigidly carried out, the early vigor of the lymph has been retained unimpaired. In England, Jenner's home, lymph from the original stock is at this time in use, and out of four hundred and forty-six vaccinations recently performed with portions of it, in three of the large cities of that country, four hundred and forty-three resulted in the development of typical vesicles—a degree of success almost if not entirely unparalleled in any other department of medicine; and, what is equally in proof of the efficacy of the lymph from this most ancient stock, not a single evidence of variola has made its appearance among the officials connected with the London Small-pox Hospital within the last thirty years.

While such striking facts as these are proof enough that degeneration does not take place with cases and lymph properly selected, the question of reversion in reality presents to us a somewhat different aspect. The facts are certain that much of the lymph now in use in this country has degenerated, owing to carelessness on the part of physicians generally, and that protection has decreased in a proportionate ratio: for these reasons a return to the cow seems inevitable. Fortunately again, however, owing to the many inconveniences attending reversion, Trousseau has, by exceedingly ingenious and practical experiments, demonstrated the absence of this necessity on the ground of degeneration. His first experiment was to test the regenerative powers of variola. A girl, aged seventeen years, whom he had vaccinated in infancy, was admitted to his wards in the Necker with mild modified small-pox. With variolous lymph from this patient he inoculated a healthy child. The pustule of inoculation alone was developed. From this he produced, in a second child, distinct variola; and finally, by inoculating a third child with virus from the second, confluent variola was produced, the poison being regenerated. This result suggested the second experiment or set of experiments. Lymph was taken

from a degenerate vaccine vesicle, one that did not become papular until the fourth day, nor develop an areola before the seventh. Transmitting this from case to case, through children selected with a view to health and vigor, it increased gradually in virulence until, after several transmissions, it equaled in quality the most energetic lymph in use. If future investigation shall add its confirmation to this last experiment—and I am satisfied it not only will, but already has—nothing but proper precaution will be necessary to banish the present superabundance of degenerate lymph, and its offspring, modified variola.

The principle of vaccination had hardly become successfully established when doubt arose as to the permanency of its protecting power. At present a large majority of the authorities believe revaccination to be necessary, (*a*) where the first vaccination was irregular in its manifestations, *i. e.*, spurious; (*b*) where, though regular, the degree of infection was small; and (*c*) in some instances even when the original vaccination developed fully the characteristic vesicle; while even Jenner himself advocated revaccination in all cases where the original vaccination had not pursued a typical course.

There are others, however, who not only oppose revaccination in instances (*b*) and (*c*) above mentioned, but who as well vehemently decry the operation *in toto*, on the ground that it is wholly devoid of any good results. So long as there are those, among whom Jenner himself is to be classed, who advocate even the possibility of success attending secondary vaccinations, it really seems the only proper course to adopt. With the operation so slight, and so utterly devoid of danger when performed with proper care, it really seems but justice to humanity that it should have the benefit of the doubt.

The question may well be asked, is there no direct proof of the efficacy of revaccination? Popular belief holds that the whole body is renewed once in every seven years, and that

the consequent changes spirit away the vaccinal charm. Without admitting the truth of a doctrine so purely theoretical, it may not be amiss to note what authority has to say in favor of the gradual waning in the system of the protecting power of the agent, and of the necessity for a new supply. Dr. Flint, for example, in his *Practice*, remarks that varioloid occurs much oftener in the aged than in the young; that revaccination becomes completely successful in advanced life, so far as manifestations of the stages of eruption are concerned; and finally, that epidemics of variola and varioloid have been completely checked by universal vaccination and revaccination. He advocates the practice of revaccinating every five years, on the principle that the operation had better be performed too frequently than too rarely.

The date for revaccinating has been variously fixed at from three to twenty-five years. Trousseau declares in favor of revaccination on the ground that we ought certainly to endeavor to multiply the chances of immunity from small-pox, and even from modified small-pox. With Prof. Flint, he favors revaccinating every five years. He relates an exceedingly interesting history of two families during a French epidemic of variola. In one, composed of eight persons, the parents had confluent small-pox; three sons, aged twenty-six, twenty-three, and twenty-two years respectively, had the disease less severely; two sons, aged eighteen and fifteen, had modified small-pox; and the other son, aged twelve, though constantly exposed to the contagion in the same room with the others, had no eruption at all. The other family consisted of seven persons, occupying the same lodgings; five were struck down by the epidemic, of whom three had been vaccinated between twenty and thirty-five years, and two from fourteen to fifteen years previously. In all of them there was a great similarity of prodromic symptoms and eruption; but when the disease attained the suppurative stage, those who had been most recently vaccinated recovered

in a few days; while the others suffered severely, and had prolonged suppuration. Throughout the whole epidemic no child under twelve years of age was attacked. Finally, revaccination has been made compulsory in both the French and the Prussian armies.

Among the popular beliefs which are calculated to bring discredit upon vaccination, undoubtedly the chief one is that various serious and disgusting diseases, as syphilis and the like, may be transmitted through the medium of the vaccine lymph. If positive proof could be adduced in support of this wide-spread suspicion, vaccination would indeed receive a severe blow. Writers are not wanting, and that too among men of eminence, who believe in the propagation of constitutional syphilis in this manner. Trousseau asserts that while he believes the lymph alone can not carry the germ of syphilis from person to person, a case is upon record where lymph stained with the blood of the individual supplying it has transmitted that disease. Prof. Joseph E. Jones, of New Orleans, has published since the war a voluminous article in support of the theory of transmissibility.

In a short sketch, such as this is intended to be, it would be impossible to review at length the article in question, and I will content myself with remarking that the theory of transmissibility of syphilis by vaccination is contrary to all our teachings concerning that disease. It is denied by all the leading modern syphilographers; it is equally denied by those who have clinically had the amplest opportunities for investigating the subject, unless indeed we except Trousseau. Cullerier, by intentionally using vaccine virus taken from persons suffering with constitutional syphilis, and also by using an admixture of syphilitic and vaccine matter, in each instance, without any ill effects whatever, has clearly and incontrovertibly demonstrated the absence of all danger from this source. Dr. Seaton, of London, in his hand-book on vaccination, the fruit of vast experience, not only denies the

theory of transmissibility, but effectually explains away the instances which have been brought forward as proof by the opposite party. Dr. Erasmus Wilson also, in his work on skin diseases, denies the possibility of syphilitic infection from vaccination; and indeed, as before remarked, testimonials without number might be adduced to controvert the idea.

Even small-pox, with all its virulency, when saturating the system of an individual, leaves untainted the vaccine vesicle that, in some instances of delayed vaccination, is developed along with the disease.

Prior to the late civil war the belief in transmissibility was in this country confined to a few. Since that time, however, it has largely gained ground, and, as may be seen by investigation, for reasons strikingly analogous to those produced upon the continent of Europe by the so-called vaccino-syphilitic epidemics of Rivalta and Auray. Abundant instances occurred in the range of march of both armies where vaccination resulted in the development of extensive suppurating sores, of so persistent and malignant a nature as to necessitate amputation in more than one instance. Whole regiments were sometimes attacked with these ulcerations. All towns in military neighborhoods experienced the effects of the epidemic, and the cry of syphilitic infection from vaccination became general throughout the country. Various forms of treatment were instituted—antisyphilitic, antiscorbutic, etc. The cases recovered; some under one form of treatment, some under another; but none more speedily or effectually than those that were removed to localities where grim-visaged war had not penetrated, and were put upon a diet of fresh vegetables, milk, etc. Not only did the sores heal, but the slightest further trace of anything like syphilis has yet to manifest itself in any of the cases. The cure was permanent.

I would ask, does syphilis yield to a simple country diet with change of air, and that so effectually as never to show

future signs of its lurking in the system? Why do we hear of no further ravages of this vaccino-syphilis? Why have no new epidemics of the disease been developed since the angel of peace returned to the angry masses? Vaccination goes on; but the so-called vaccino-syphilis has taken wings, and effectually vanished from our midst.

It was with our epidemic as with those of Rivalta and Auray: general inference was adopted as positive proof. No one could say that the lymph in use was syphilized; it is so inferred only from its effects, a process of reasoning that hardly ever fails to lead us to false conclusions. During the time when the Federal troops in Louisville and its vicinity were experiencing the effects of the epidemic, an eminent practitioner of the city vaccinated a perfectly healthy young lady, in his private practice, with lymph taken from an infant known by him to be totally devoid of any constitutional taint whatever. The arm became frightfully sore, so much so indeed as to give rise to the question of amputation. The sore healed, however, leaving an ugly scar to mark its ravages. Here was a case similar in all its manifestations to the so-called vaccino-syphilitic cases at that time occurring in the military barracks of Louisville and elsewhere; and yet the absence of such infection was certainly beyond a doubt.

We must then look elsewhere than to the virus for the cause and nature of the epidemic referred to. The time when it was rife was one of peculiar interest to both physician and surgeon. Such was the state of the surrounding atmosphere where sick and wounded soldiers were congregated that many diseases, and especially those of a surgical nature, were very strikingly modified and strangely complicated. Then it was that hospital gangrene decimated the military hospitals and penetrated even the private sick-chamber; a disease which, with pathology and cure unknown, spread in a manner only to be accounted for by atmospheric infection. It came with the evil spirit of war, and with it has completely vanished.

Nor need we confine ourselves to the war period to show the peculiar and disastrous influences which incomprehensible atmospheric forces may at times exert upon otherwise simple affections. Diphtheritic and erysipelatous epidemics only too frequently typify this; and, unsatisfactory as the theory may seem to some, it appears to me far more plausible to attribute epidemics of malignant vaccine pustule to obscure atmospheric causes rather than to so thoroughly exploded a theory as that of vaccino-syphilis.

A few additional remarks in reference to the propagation of other diseases, such as scrofula, non-specific skin diseases, and purulent infection, are necessary before passing to a consideration of the fourth and last query propounded. The mere development of any disease simultaneously with or subsequently to vaccination is no proof that the vaccination was the cause; and the assertion that scrofula has been transmitted in the lymph rests upon this ground alone.

Infancy, says Mr. Paget, is the season when eruptive diseases prevail most abundantly; and when these follow vaccination, if they depend upon it at all, it is simply that the operation has acted as an exciting cause of development. Even could it be proved that this operation does really cause these evanescent and harmless affections, the fact would hardly stand in the way of so grand a conception as vaccination.

Finally, with regard to purulent infection. If the vaccine lymph ever causes pyæmia, which is very generally doubted, it is either because lymph taken from a person actually laboring under the disease, or lymph that has spoiled by too long and careless storing, has been introduced; and in both instances the vaccinator is the criminal deserving censure, not the art he pretends to practice.

Constitutional diseases then, I think it may be assumed, can not be propagated by vaccination when performed with proper care. By no means, however, does it follow from this

that it is immaterial from what source we choose our lymph. Carelessness in selecting cases for a new supply of material is the prime cause of the present excess of modified small-pox over former periods. No individual laboring under a serious constitutional disease, be it chronic or acute in form, is in a condition to furnish healthy, vigorous lymph, energetic to a degree adequate for complete protection; and for this reason, not because of any fear of transmitting disease, should we invariably discard all lymph not furnished by persons enjoying robust health.

I come now to the consideration of the last question—the advantage of multiple puncture over single. Many vaccinators are disposed to deem one point of introduction fully sufficient if the result be a true Jennerian scar. This indeed may be said to be the general opinion of the profession on the subject, and the general practice has conformed to it. Almost universally in this country, I think, the practice has been to insert the virus at one point, and one genuine cicatrix has been regarded as sufficient. But there are good grounds for believing that this opinion is erroneous, and if founded in error it is one which ought at once to be corrected. If it be a fact that increased immunity is given by multiplied scars, it is one which should be universally known. This is now the doctrine held by the highest authorities on the subject; according to which “a distinct connection subsists between the number and the quality of the cicatrices and the protection conferred by vaccination against small-pox; so that it may be confidently stated that that vaccination is the most efficient from which the most and the best cicatrices result.” In proof of this position the following very conclusive table is presented. It embodies the statistics collected by Mr. Simon in six thousand cases of post-vaccinal small-pox during an experience of five and twenty years. The cases are classified with reference to the number and character of the cicatrices. The table is taken from Aitken's Practice.

Cases of Small-pox classified according to the Vaccination <i>Marks</i> or <i>Cicatrices</i> borne by each patient respectively.	No. of DEATHS per cent in each class respectively.
CLASS 1.—Stated to have been vaccinated, but having NO <i>cicatrix</i> ...	21.75
“ 2.—Having ONE <i>vaccine cicatrix</i>	7.50
“ 3.—Having TWO <i>vaccine cicatrices</i>	4.12
“ 4.—Having THREE <i>vaccine cicatrices</i>	1.75
“ 5.—Having FOUR or MORE <i>vaccine cicatrices</i>	0.75
Unvaccinated.....	35.50

Following this Dr. Aitken classifies FOUR DEGREES of protection.

CLASS 1.—Best protected—having *more* than *two* TYPICAL marks.

CLASS 2.—Sufficiently well protected—having *two* TYPICAL marks.

CLASS 3.—Moderately protected—having *two* or *more* PASSABLE or *one* TYPICAL mark.

CLASS 4.—Badly protected—having BAD marks, or having only *one* PASSABLE mark.

From these figures it will be seen that the liability to attacks of small-pox decreases steadily with the number of cicatrices until it hardly amounts to anything when they reach four. Comment upon these statistics is unnecessary.

LOUISVILLE, KY.

ON THE TREATMENT OF CROUP.

BY JOHN S. SEATON, M.D.

The frequency of croup attacks and the fatal character of the disease are truths fully recognized by the medical profession. The peculiar and interesting class of subjects assailed by it heightens the interest of it to the professional mind. Although the disease has been well defined, and has been the subject of almost numberless essays, dissertations, and dis-

cussions for the last century, yet its mortality is scarcely if at all diminished. Why is this so? If the disease is properly understood, why has its therapeutic management not been more successful? Does not the acknowledged fatality of the disorder afford at least presumptive evidence that the varied remedial measures heretofore recommended were established upon erroneous and imperfect views of the pathology and essential nature of the disease?

To my mind this is undeniably true; but to attempt to show this fact by a discussion of the questions here is simply impossible, because it would swell this communication far beyond the limit assigned to it. I content myself therefore by saying that during a period of twenty years of active and laborious practice in a thickly populated country (Jefferson county, Kentucky), where I saw and treated a great number of cases of this disorder, I am pained to say I never saw a single case of pseudomembranous croup recover. During those twenty years I accepted the doctrine of its high inflammatory character as true; and consequently employed the heroic treatment as the legitimate offspring of that dogma; to wit, tartar emetic, the lancet, warm baths, and purgatives.

For eleven years I have been fully satisfied that the current theories of the disease are false, and that the practice founded upon them is not only not curative, but really destructive of the lives of the little patients; and consequently I have during that period employed altogether different therapeutic measures: and, I can affirm, with the happiest results; for in that time I have not lost a single case of croup.

So confident do I feel of the correctness of my views on this subject, that I do not hesitate to assert my strong conviction that the most rapid and violent attack of idiopathic croup can be cured as readily and as certainly as a case of pleurisy or pneumonia, if taken in time. I have seen so many violent and threatening cases yield so completely and so promptly that the disease, to my mind, is shorn of its terrors. A

few cases selected out of many will illustrate my method of treatment.

November 28, 1858, was called at four o'clock in the morning to see a female child thirty-three months old. Found the child lying on its back on its father's lap; breathing extremely difficult, both stridulous and sibilant; pulse rapid and full; skin hot and bedewed with perspiration; cyanosis marked. Patient had suffered all night, and had been subjected to oft-repeated emesis by a solution of sulphate of alumina, also to purgation by *ol. ricini*. The spasmodic closure of the mouth of the larynx was persistent, and threatened asphyxia every moment. Gave half grain calomel and one sixth grain ipecac every half hour; saturated solution of chlorate of potash a dessert-spoonful every fifteen minutes; warm fomentations to the throat. Continued this course four hours; the patient having twice during that time died by asphyxia, as we thought. I suspended these remedies, except the fomentations, which were continued, and gave five grains Dover's powder. Under this the little patient's breathing improved; she became quiet and slept. Four hours after the opiate, gave an emetic of calomel and ipecac, which acted in thirty minutes, dislodging from the larynx a mass of pseudomembranous material in a state of purulent decomposition, except that portion corresponding to the rudimentary ventricles of the larynx, which came away in its membranous integrity. From that moment the patient was relieved. I gave her three grains Dover's powder at eight o'clock P. M., and occasionally a little chlorate of potash. At eight o'clock that night her breathing, pulse, and surface were normal; a rough, hoarse cough being the only evidence left of the disease. The voice soon recovered its usual tone, and in three days she was fully convalescent.

E. S., aged four years, sister of the foregoing, was attacked at eleven o'clock P. M., November 18, 1858. She had suffered from catarrhal symptoms for a day or two. Gave four drachms wine of ipecac. Prompt emesis followed. Gave half grain

calomel and three grains Dover's powder; repeated calomel and one and a half grains Dover's powder every three hours till she took four powders; gave chlorate of potash and used fomentations. At one o'clock A. M., 19th, stridor subsided; cough became easy; expectoration free and abundant. No further trouble. Discharged cured on the 20th.

E. W. S., aged three years, was attacked at three o'clock A. M., April 2, 1859. Gave emetic of wine of ipecac; it acted freely, and seemed to relieve for a few hours. At twelve o'clock M. she was worse; brassy, dry cough; stridor; grew rapidly worse under half grain calomel and one third grain ipecac every two hours. At six o'clock P. M. stridor became extreme, and threatened suffocation. At six o'clock P. M. gave half grain calomel and three grains Dover's powder; repeated calomel and two grains Dover's powder every three hours until she had taken four portions; chlorate of potash and fomentations to the throat. At eleven o'clock P. M. stridor and dry, brassy cough gone; free, abundant expectoration. At three o'clock A. M., April 3d, gave an emetic of wine of ipecac; patient ejected from the stomach an enormous amount of decomposed pseudomembrane that had been coughed up and swallowed. Croup cured, but pneumonia set in, and continued eight days. She recovered, and is now one of the palest girls in this city.

G. H. S., male, aged twenty-three months, was attacked on the night of February 9, 1860. Saw him at four o'clock A. M. of the 10th; stridor loud and labor in respiration extreme; cough dry, brassy, and hoarse; voice almost destroyed; attempts at crying scarcely audible. Gave three drachms wine of ipecac, which produced prompt emesis. As soon as this was over, gave half grain calomel and two and a half grains Dover's powder; chlorate of potash solution a dessert-spoonful every half hour. Repeated calomel and two grains Dover's powder every three hours until he had taken four powders. At seven o'clock A. M. on the 10th stridor and dry, brassy

cough gone; cough natural, with easy and abundant expectoration. At twelve o'clock M. gave an emetic, which was followed by the ejection of large quantities of matters and membrane that had been swallowed. No further trouble; convalescence uninterrupted.

H. S., male, aged eight months, was attacked December 10, 1860. Saw him at five o'clock A. M., December 11th. All the symptoms of croup in full development, and danger of asphyxia imminent. Gave two drachms wine of ipecac; emesis prompt. Gave one quarter grain calomel, two grains Dover's powder, and one drachm chlorate of potash solution; fomentations to the throat. Repeated calomel and Dover's powder in two hours; these quieted the breathing. At eight o'clock A. M. stridor gone; dry, brassy cough had given place to a full, mellow cough, with copious expectoration. At eleven o'clock A. M. of the 11th gave an emetic of wine of ipecac to dislodge the great quantity of puriform material expectorated and swallowed. The shreddy character of this material indicated its membranous character. From this time convalescence was uninterrupted.

My sixth case was also a male, aged two and a half years. He was attacked in the early part of the night of December 6, 1863. Had medical attendance, and on the morning of the 7th was improved; but in the afternoon became rapidly worse. At six o'clock P. M. his voice was nearly gone; cough dry and brassy in the extreme, though the sound was muffled, and not loud and ringing as in cases of more recent attack. I saw the patient in company with Dr. M., and we decided to give him half grain calomel and three grains Dover's powder at once; solution of chlorate of potash, and fomentations. In two hours repeated calomel and gave one grain Dover's powder. At ten o'clock P. M., 7th, stridor gone, cough deep and full, and expectoration abundant; convalescence speedy and complete.

Dr. W. H. Galt, a judicious and cultivated physician of

this city, has furnished at my request the following interesting notes of two cases of croup treated by opiates.

In November, 1868, I was asked by Dr. Singleton to see a case with him. We found the patient, a boy of five or six years of age, with all the symptoms of severe croup; had been gradually getting worse for three or four days. His pulse was 130; respirations 40 to the minute; voice suppressed and breathing fearfully laborious. We ordered him small doses of calomel and ipecac, with stupes to the throat, and inhalation of steam. The next morning we found him almost in a dying condition; cyanosed and struggling for breath. None of our instructions had been carried out. Thinking him in a hopeless condition, I suggested that we should try the opiate plan of treatment which Dr. Seaton had recommended in a recent conversation. I confess I did not expect anything from any treatment, but hoped to mitigate the fearful sufferings of the patient. We ordered four grains of Dover's powder, to be repeated every three hours until he slept. In the evening we found him narcotized, but breathing more easily; left directions to keep him under the influence of the medicine. Next morning found him breathing more easily, cough loose, and pulse less frequent. His mother said he had coughed up a large quantity of stringy matter. Asked her to save some of this for our inspection. In the evening found him sitting up eating a roasted potato, breathing almost naturally. His mother, to our great regret, had neglected to save any of the expectorated matter. Discharged.

The second case was almost parallel with the first, except that the subject was much younger, being only seventeen or eighteen months old. In this case, however, the inhalation of steam from an infusion of peach-tree leaves was faithfully kept up; the parents having great faith in its efficacy. This case resulted favorably. The difficulty of breathing and all the distressing symptoms were ameliorated as soon as narcotism was produced.

I used the modification of the Dover's powder suggested by yourself; viz., the substitution of the chlorate of potash and powdered sanguinaria canadensis for the sulphate of potash and ipecacuanha.

I am able further to fortify my practice in croup by the following cases communicated to me by my friend, Dr. S. B. Mills, of this city.

"I was called February 13, 1867, to see a negro child aged three years and four months. For three days previous to my visit had been complaining. There was stupor, sneezing, cough, and fever. The cough, though not decidedly croupal, was rough, somewhat brassy, and ringing. She grew gradually worse up to the time of my visit, when the symptoms had become quite urgent. The cough was spasmodic, and the voice had the peculiar croupal sound; the dyspnoea distressing; the countenance anxious. She had been vomited freely and repeatedly, but without benefit. Gave her the following: Pulv. Doveri, gr. x; Hydrarg. submur., gr. v. M., div. chart. No. v. One every hour. Chlor. potas., dr. j; Aquæ, oz. ij. M. Tea-spoonful every half hour. Flannel cloths, dipped in hot water, to be applied to upper part of chest constantly. Returned in three hours; patient breathing easier; some stupor; pupils slightly contracted; cough not so frequent, but still characteristic. Continue treatment. Six hours later saw patient again; narcotism becoming apparent; bowels have acted well; perspiring freely. Several pieces of membrane have been expectorated. Cough remains rather hoarse, but there is a tendency to expectoration and moisture of the air passages. Prolong the intervals between the powders to three hours, omitting calomel. This treatment was continued, prolonging or shortening the intervals between the doses of Dover's powder according to circumstances, but keeping the patient constantly under the influence of the remedy. Free expectoration set in on the 11th, and on the 13th the case was dismissed.

"December, 1869, I was called to Addie S., aged twelve. Her case in nearly all respects was like the foregoing. Was given four grains Dover's powder and one grain calomel every two hours till the full effect of the opium was obtained. Chlorate of potash, dissolved in glycerine and water, given freely. There was some nausea from the Dover's powder in this case. The essential thing aimed at was to bring the patient promptly under the influence of opium, and maintain it till relief was obtained."

[The foregoing paper is a portion of a pamphlet on Croup, by Dr. Seaton, which will soon appear.—EDS. AM. PRAC.]

LOUISVILLE, KY.

TREATMENT OF PURULENT OPHTHALMIA IN INFANTS BY NITRATE OF SILVER.

BY H. RUSCHHAUPT, M. D.

In Germany, where the treatment of *blenorrhœa neonatorum* by caustic is widely adopted both by oculists and general practitioners, cases are rare where vision has been destroyed by this disease. This accident, however, seems to be by no means an infrequent one in the United States, where this method of treatment is apparently not very popular with the profession. At least in quite a number of cases where the eyes have been destroyed by blenorrhœa, which I have seen during the short time I have practiced my specialty in Louisville, I have not met with a single one in which a rational, or in other terms, proper caustic treatment had been carried out. The large majority of oculists agree in the opinion that this treatment is far superior to all others, and that when properly executed it yields satisfactory results in nearly all cases, if taken in time, and before the cornea is involved. Stellwag,

who is the opponent of this practice, represents a very small number of oculists.

Necessarily measures so energetic as this method calls for involve many dangers; but continued and careful observation has made us so thoroughly acquainted with the sources from which these dangers spring that we are enabled to control them completely.

One of the leading drawbacks connected with the use of caustics is the possibility of their coming in contact with the cornea. It can not be denied that the cornea in this way may be deprived of its protecting epithelial layer, and extension of the blenorrhœal affection upon this important part of the eye be thus much favored. We are indebted to modern ophthalmology, however, for the means of preventing this dangerous complication. The caustic which I use exclusively in the disease referred to is the nitrate of silver, in some one of its several forms—in solution, or the solid, or the mitigated stick; the latter formed by the addition of the nitrate of potash. It is in my opinion not only the most efficacious of all caustics in blenorrhœal affections, but is at the same time the *least* injurious. I have already remarked that it is altogether harmless when used with the proper precautions. After everting the lids completely, and penciling the diseased conjunctiva with the solution by means of a camel's-hair brush, or with the mitigated stick, we immediately neutralize the nitrate of silver by a solution of the chloride of sodium. The chloride of silver thus formed is washed off subsequently with cool or lukewarm water. It can not be doubted that by a careful employment of this method the cornea can with certainty be protected from injury.

But even in cases where the overflow of the caustic upon the cornea has been prevented, a bolder cauterization than that we have named may itself become the cause of serious trouble. By the irritation which it necessarily produces undue inflammation is excited, and the succeeding eschar acts

as a foreign body. The denser and more rigid the slough the more the irritation and inflammation are increased and the dangers of the disease aggravated. This disagreeable effect occurs particularly in cases where the inflammatory symptoms are highly developed, especially where the conjunctiva shows a tendency to plastic exudation. Under such circumstances vigorous applications of the nitrate of silver may cause the extension of the disease to the cornea, and sometimes even be productive of a seeming diphtheritic character of affection. Especially is the latter occurrence to be apprehended when such inflammations of the cornea or other parts are already prevailing. Even in simple cases, however, as long as they are recent, indiscreet cauterizations are dangerous. It has been frequently observed that the cornea, which before the application of the caustic was in a completely normal condition, soon after exhibited circumscribed infiltrations, which in a short time changed into ulcerations; while these were not infrequently followed by perforation with all its evils. Although a rational treatment in such cases nearly always prevents the loss of vision, the sufferings of the patient are disagreeably protracted by the occurrence. The most eminent writers on ophthalmology agree that these affections of the cornea are often distinctly traceable to severe cauterizations. Von Graefe, at the Ophthalmological Congress in Heidelberg (1865), stated that he had never observed these corneal infiltrations except when the slough had still been visible twelve to twenty-four hours after the cauterization.

By the foregoing remarks we hope we have demonstrated the fact that indiscreet applications of caustic may be productive of great danger to the eye in cases where the inflammatory symptoms are well developed; where there is a tendency to plastic exudations; where diphtheritic affections of the conjunctiva prevail; and, finally, in all recent cases. Under such circumstances we ought to confine ourselves to the milder forms of the remedy, from which we shall secure

the most beneficial results. A solution of the nitrate of silver containing four or five grains to the ounce, or the mildest composition of the mitigated stick (one part of the nitrate of silver to three of the nitrate of potash), carefully applied according to the principles we have laid down, are sufficiently strong applications for these cases. When the inflammatory symptoms have subsided, and no tendency to plastic exudations exists, as soon as purulent secretion is abundant, gradually more energetic cauterizations are called for; yet we have never found a solution containing more than fifteen grains to the ounce, or the mitigated stick (one part of the nitrate of silver to two of the nitrate of potash), necessary.

In former years, when I began the treatment of every case with vigorous cauterizations, I saw circumscribed infiltrations of the cornea more frequently than I do now. During the last four years, treating all my cases according to the rules I have described, I have never again been troubled by these unpleasant complications—patients recovering completely within from twenty-five to thirty-five days. On an average from ten to fifteen cauterizations are necessary. In most of the cases, during the first three or four days the caustic was applied daily; afterward only on every second or third day. Between the cauterizations I had the eyes very carefully cleansed with lukewarm water, five or six times within the twenty-four hours. As soon as the secretion assumes a catarrhal character I cease the use of the caustic, and prescribe an astringent collyrium (nitrate of silver, one or two grains to the ounce).

It has by no means been my intention in these remarks to offer to the profession new facts or new principles for the treatment of the purulent ophthalmia of infants. It was simply my object urgently to recommend a treatment which, among American practitioners, has not met with that degree of appreciation and popularity which it so highly deserves.

LOUISVILLE, KY.

A MEMOIR OF THE LIFE AND WRITINGS OF
DR. BENJAMIN W. DUDLEY.

BY L. P. VANDELL, M. D.

The announcement of the death of Dr. B. W. Dudley, though from his great age and increasing infirmities an event not unexpected, will be read with feelings of sadness by every American physician; and educated surgeons in every country will feel, when they read it, that a great light of the profession has gone out. The oldest by many years of all the eminent medical men of the West and South, for a long time the unrivaled surgeon of the Mississippi Valley, one of the founders of the earliest of all our western schools of medicine, he was the last remaining link between the present generation of physicians and that which has passed away with him. If he leaves behind him any superior in the profession of our country, it is certain that no one of all our surgeons has occupied a larger space in the public eye. He achieved indeed a great reputation. He was equally distinguished as a surgeon and as a teacher of surgery. His life and character were in many respects remarkable, and furnish materials for a memoir of extraordinary interest. It would be a pleasure to write a history of his professional career; and one, no doubt, will be written in due time worthy of his fame and services. In the limited space that can be afforded by a journal like this, nothing more can be attempted than a brief notice of the more prominent events and labors of his life.

Dr. Benjamin Winslow Dudley was born of respectable and pious parents in Spottsylvania county, Virginia, on the 12th of April, 1785. His father, Mr. Ambrose Dudley, long known as a leading Baptist minister in Kentucky, and whose memory is still affectionately cherished in the churches where

he labored, removed to the neighborhood of Lexington, into what was then called the county of Kentucky, when he was a year old. In that neighborhood his long life was passed. He grew up with the beautiful city which was his pride, and of which he was always a favorite son. The opportunities for acquiring an education in Kentucky when he was growing up were very limited, and it is not known that he enjoyed any which his own immediate neighborhood could not furnish. If he studied any language but his own at school, it must have been superficially, for he made no pretensions to any knowledge of either the Greek or Latin; and the perfect command of the French which he is known to have possessed he acquired later in life, and principally when he was abroad. He was probably not a student. His turn of mind was not literary. But his education was not neglected, and the training which he received was in studies which fitted him well for a life of action. No doubt in subsequent life he often felt painfully the want of those classical attainments which in the public mind are always associated with a professional education, and he was sometimes embarrassed in the society of scholars. But if he missed the grace of a thorough education, he was saved from the temptation to which scholars are exposed of wasting upon vain studies those powers which he devoted with so much success to matters of practice. He had not to regret at the end of his life, with the learned Grotius, that he had consumed it in levities and strenuous inanities.

Medicine being the profession to which his taste inclined him, he was placed by his father, when very young, under the tuition of Dr. Frederick Ridgely, an eminent physician at that time and for many years after in a large practice in Lexington. In the office of this excellent instructor he was not only taught the elements of medicine, but had constant opportunities of becoming acquainted with disease at the bedside. Dr. Dudley always spoke with warmth and esteem of his scholarly and urbane preceptor, as a physician whose

high culture of mind and elevated moral tone reflected dignity upon his profession.

In the fall of 1804 he went to Philadelphia to attend medical lectures. He met in the University of Pennsylvania, among the students of that winter, John Esten Cooke, Daniel Drake, and William H. Richardson—names destined afterward to be associated so often and so closely with his. The coincidence is interesting. Two of these students, like himself, were from the backwoods, and felt as he did the disadvantages of a deficient education. Richardson had been reared in his own immediate neighborhood, and had not made himself even an English scholar. Drake by great assiduity had already supplied many of the deficiencies of his early tuition, but knew no language except his own mother-tongue. All became distinguished, and two of the three who were with him in that class rose to an eminence hardly exceeded by his own. At different times all subsequently were associated with him as colleagues, and two sustained to him, at a later period, the relation of strenuous competitors in rival medical schools. But whether working harmoniously together in the same institution, or striving to build up rival schools, all were engaged in shaping the profession of medicine in the frontier states, and will always hold a place among the most useful and honored of its pioneers.

In the interval between the lectures, from April to October, Dr. Dudley engaged in practice with Dr. Fishback, a distinguished physician of Lexington. At the close of his second course in the University of Pennsylvania he took the degree of M. D., near the end of March, 1806—just two weeks before he was twenty-one years old. Then returning to Lexington, which had now become a town of note, and was indeed the literary and commercial emporium of the West, he became again a candidate for practice. But he seems not to have entered heartily into the business. He was not satisfied with his professional attainments. His ambition was fired by his

associations in Philadelphia. He was resolved to qualify himself for the highest position in his profession. And this, he thought, could only be done by studying in the hospitals and under the great teachers of Europe. His energies were all directed to the accomplishment of this end; and with the view of acquiring the requisite means he added some commercial business to the practice of physic. On some adventure connected with trade he went to New Orleans in a flatboat about the year 1810. There he bought a cargo of flour, with which some time in that year he sailed to Gibraltar. Disposing of his cargo advantageously at that point and at Lisbon, he made his way through Spain to Paris.

He remained nearly four years in Europe, and the larger portion of that time was spent in the French capital. Its vast hospitals and dissecting-rooms afforded the facilities he was in quest of. His mind craved a knowledge of facts; and though the fame of the great surgeons of London and Paris had inflamed his ambition, it was things he had gone abroad to see and learn. Diseases in their varied phenomena and aspects, operations on the living subject, the minute structure of the human body—these were the objects of his study. Paris furnished them in amplest measure, and on the most liberal terms; and it was in Paris undoubtedly that he gained that perfect knowledge of anatomy and that familiarity with surgical operations which laid the foundation of his success as a surgeon. But though acquiring most of the knowledge which availed him in future years through the institutions of Paris, it was for the surgeons of London that he habitually expressed the highest admiration, Baron Larrey perhaps excepted. They certainly of all his teachers had the largest share in shaping his opinions and molding his professional character. In manners he came home a Frenchman, but in medical doctrine and practice he was thoroughly English. It was impossible that he should not admire the great military surgeon of France, and be captivated by the recital of his

wonderful experience. The memoirs of this extraordinary man furnished him indeed with numberless incidents with which he afterward added to the dramatic interest of his own surgical lectures. But it was Abernethy who impressed him as the leading surgeon of Europe. Sir Astley Cooper was his *beau idéal* of an operator, but Abernethy he always quoted as the highest authority on all points relating to surgery, as at once the observant student of nature, the profound thinker, and the sound medical philosopher.

The years embraced in Dr. Dudley's stay in Europe belong to one of the most eventful periods in the history of France—a period as favorable as could be for the study of that branch of his profession to which he was specially devoting himself. How wisely he improved those fine opportunities is best attested by the perfect mastery of his profession which he afterward exhibited in all the emergencies of practice.

It was while pursuing his studies in Paris that Napoleon set on foot his gigantic Russian campaign. Having made the acquaintance of Caulaincourt, the Emperor's trusted minister, he was admitted to the chamber of deputies on the occasion of Napoleon's appearing before that body at the close of his disastrous expedition. The writer has often heard him describe the scene as the most impressive that he had ever witnessed. The Emperor's address was brief—"The grand army of the empire is annihilated." These were the terrible words with which he commenced it.

In the summer of 1814 he returned to his old home at Lexington. He returned with high aspirations, and with a consciousness of superiority given by his advantages. There was now no longer any hesitation in his movements or diversion of his mind from medicine by foreign pursuits. His profession had become the engrossing object of his thoughts, and from that time on until age made it necessary for him to relax his labors, he applied himself to it with undeviating fidelity. I am sure I have never known a physician who

made himself more a slave to his profession. He had no holidays. He sought no recreation: no sports interested him. If his friends prevailed on him to quit the city on a trip of pleasure, he returned to his business rather wearied than refreshed by the excursion. His thoughts, he has been heard to say, were always on the cases he had left behind, and not on the objects or the amusements around him.

Such devotion had not long to wait for its reward. But, apart from this faithful application to business, there were other circumstances which rendered the time of his return peculiarly auspicious to his success. Great as were the western states at that day, and growing, as they were, daily greater, they were still without a surgeon of note, and without a medical school. Students of medicine had then to cross the mountains, or practice without a diploma, or the knowledge derived from attendance on lectures. Dr. Dudley soon gave assurance of his ability to meet both of these public wants. With his consummate knowledge of anatomy, and the skill he had attained in the use of the knife, he was not long acquiring a national reputation as a surgeon; and when, a short time after his return, the project of a school of medicine began to be agitated, public opinion pointed at once to him as its head. Added to these influences, which gave him early distinction, another circumstance favored his immediate introduction into practice. He found a disease presenting some strange features prevailing in the country when he reached home. Traces of the typhoid pneumonia which had just swept across the continent were to be seen everywhere in Kentucky. The fatal epidemic had given place to a bilious fever, characterized, like the plague, by a tendency to local affections. Abscesses formed among the muscles of the body, legs, and arms, and were so intractable that limbs were sometimes amputated to get rid of the evil. Arriving in the midst of so alarming an epidemic, Dr. Dudley was not long without calls. His attention while abroad had been specially directed to the

bandage as an agent, among other things, for controlling ulcers of the extremities. It at once occurred to him that this appliance was adapted to the treatment of the burrowing abscesses with which he was continually meeting. The efficiency of the bandage, now recognized by every surgeon, was at that time not fully understood. Dr. Dudley's success with it in these cases was striking, and from its novelty, as well as its efficacy, his practice drew upon him general attention.

In 1817, three years after his return to Lexington, the Board of Trustees of Transylvania University determined to create a medical department in that institution, then the leading college in the West. Dr. Dudley was made professor of anatomy and surgery, and two of his fellow-students of 1805 were associated with him—Dr. Drake in the chair of materia medica, and Dr. Richardson in that of obstetrics. Dr. James Overton was elected professor of theory and practice of medicine, and to Rev. James Blythe, D. D., was assigned the chair of chemistry. A small class of medical students encouraged the enterprise, and at the close of the session one of the number, W. L. Sutton, afterward a distinguished physician of Kentucky, was admitted to the doctorate. The beginning was regarded as favorable, but before the winter was over misunderstandings occurred among the members of the faculty, and the feuds resulted in its disruption. Drake went back to Cincinnati to inaugurate measures for establishing a medical school in that rising city, and Overton, disgusted with medical politics, removed to Nashville. Bitter animosities, some sharp pamphleteering, and a duel between Dr. Dudley and Dr. Richardson ensued, in which the latter received a pistol-shot in the thigh. No attempt was made that year to carry on the department, but the year following a new faculty was organized, with Dr. Dudley in his former chair, and Dr. Richardson and Dr. Blythe again as two of his colleagues. To these were added Dr. Charles Caldwell and Dr. Samuel

Brown, the former in the institutes of medicine, the latter in theory and practice, and both widely known to the profession.

It should be remarked, as a fact creditable to Dr. Dudley, that in the reconstruction of the faculty he made no objections to serving with a gentleman with whom a little while before he had had a hostile meeting; and that a few years later he united with his colleagues in an invitation to Dr. Drake to return to the school, though that gentleman in a public controversy with him had written much that it was not easy to forgive. The fact shows that he was both magnanimous and wise. He was able to rise superior to the prejudices which personal bickerings engender, and gave his voice for the men who had the greatest fitness for the places, regardless of their social relations to him.

Dr. Dudley had in the faculty as now constituted some colleagues who were worthy of him. Caldwell and Brown, gifted and learned, ripe in their powers, of the most imposing presence, and already known to fame, were just the men to coöperate with him in his enterprise. Caldwell especially had the qualities of mind and temper to render the infant school the most important services. To his varied learning and uncommon eloquence he added boldness and energy, and a devotion which never waned or wavered. All his time, all his gifts as a writer and a speaker were fully and enthusiastically devoted to the institution.

The Transylvania Medical School under this organization grew apace. In the number of its pupils it began in a few years to vie with the older schools on our Atlantic border. The ability of its faculty could not be questioned. Its alumni showed themselves to be equal in attainments and professional skill to the graduates of the oldest institutions. It took rank in a little while with the schools of Baltimore, New York, and Philadelphia; and the reputation of Dr. Dudley rose with it. His admiring pupils bore to every part of the country reports of his surgical skill and of his powers

as a teacher. Unquestionably from the beginning he was in their estimation the foremost man in the faculty. Drake entered it in the fifth year of the school, when its success had become assured, and he brought to it a brilliant reputation. But Dudley's preëminence continued undisturbed. Students doubtless there were not a few who would have declared for other professors, who took more interest in other lectures than his; but the great body of the class he had always with him. To him they always hurried, however listlessly they may have repaired to other teachers; and whatever other rooms were deserted his amphitheater was always full.

Why, it is natural to ask, was this ascendancy? What was the source of that superior influence which he so long exerted? It will not be claimed, I think, by his most ardent admirers that he was intellectually superior to all his colleagues. Nay; he was the readiest himself to admit, as I myself know, that in point of mental endowments several of his associates had the advantage of him. There were with him in the faculty at all times men who surpassed him in all the qualities that go to form the popular lecturer. Caldwell was far more brilliant and eloquent, besides being a profound scholar. Brown was superior to him in voice and person, in versatility of mind, and in depth and variety of learning. Drake exceeded him in elocution, in earnestness, in the extent of his attainments, and in grasp of mind. He laid no claims indeed to oratorical powers or to professional erudition. He was not a logician, he was not brilliant, and he had neither humor nor wit. And yet in ability to enchain the attention of students, to impress them with the value of his instruction and his greatness as a teacher, he bore off the palm from all the gifted men who at various periods taught by his side. By common consent he stood as an instructor among the foremost of them *facile princeps*.

This was partly due undoubtedly to the department of medicine taught by him. There is, as all medical teachers

well know, an inherent charm about surgery for medical students, a dramatic interest in the cases of the surgeon, an *eclet* about his operations which is found in no other branch of our art. Something is also to be set down to his holding two professorships. This had its effect upon the imagination of students. But all this is far from accounting for the superiority which he maintained so long in the midst of such competition. The true explanation of the fact is to be found, I think, in the perfect devotion of his life to one pursuit. Choosing this wisely with reference both to his own aptitudes and its dignity, he concentrated upon it all the powers of his mind and made himself a master in it. All other studies he neglected. To all pleasures that would draw him away from it he turned a deaf ear. Cool, quick, calm, decisive, with a sound judgment and a steady hand, he had all the attributes of a great surgeon, and he improved them by severe application. In point of skill he rose to an eminence which no one around him approached. Patients came to him from afar because it was believed that he did better what others could do than any one else, and that he did much which no one else in reach could do. Students looked up to him as an operator who had distanced competition, and a teacher who gave them not what was in the books, but what the writers of books had never understood. Like John Hunter, he rather prided himself on his independence of authorities, and this increased the admiration of his pupils. They listened to his words as those of a master who drew continually upon the stores of his own ample experience, and not upon the teachings of others. They were persuaded that there was much they must learn from his lips or learn not at all.

His manner as a lecturer was singularly imposing and impressive. It was magisterial, oracular, conveying the idea always that the mind of the speaker was troubled with no doubts. His deportment before his classes was such as further to enhance his standing. He was always in presence

of his students not the model teacher only, but the dignified, urbane gentleman; conciliating regard by his gentleness, but repelling any approach to familiarity; and never, for the sake of raising a laugh or eliciting a little momentary applause, descending to coarseness in expression or thought. So that to his pupils he was always and everywhere great.

The medical school at Lexington, owing to the influence of his great name more than to any other cause, flourished for more than twenty years. But he was painfully aware that it was beset by difficulties which must ultimately cause its decline. He often alluded mournfully to these circumstances in conversations with his colleagues; and when the effort was made, in 1837, to transfer the school to Louisville, it was expected that he would favor the measure. But he decided otherwise. His attachment to Lexington, where he had been brought up and was surrounded by such troops of friends, overbore all considerations of policy, and he remained with the school on the spot where they had risen together. His last course of lectures was delivered in 1849.

In some respects Dr. Dudley, as a practitioner, was in advance of his age. He condemned blood-letting, and used to say that a man's life was shortened a year for every bleeding. On this point he was up with those of our day who are the most ultra. His use of the trephine in epilepsy and his treatment of fungus cerebri were original. The bandage in his hands assumed an importance not dreamed of in our country before his time. His views on many surgical subjects were peculiar, and he adopted novel methods in the cure of others which have been sanctioned by general experience. But at his practice in another and a large class of affections the physician of modern times stands aghast. To "puke and purge, puke and puke," as he advised, day after day, for weeks and months together, in tubercular diseases, affections of the hip-joint, spine, etc., all the while restricting patients to a diet of skimmed milk and stale bread, or a few half pints of water-

gruel, would be, as we regard it, to conspire with the disease against the life of the patient. And yet if Dr. Dudley was not a successful practitioner he was greatly deceived—and the public was sadly deceived with him. Unquestionably he had the reputation of success, and he was himself fully persuaded that he was making cures all his life, by his energetic practice, of diseases which are esteemed the most unmanageable.

Dr. Dudley's reputation as a surgeon rests chiefly upon his operations for stone in the bladder, in which he succeeded better than all other surgeons either of our own or of former times. He performed lithotomy in the course of his life two hundred and twenty-five times, and it was not until after about his hundredth case that he lost his first patient as a result of the operation. This success, it is believed, is unparalleled. He never adopted lithotrity, but performed the lateral operation, and to the last adhered to the gorget for making the incision into the bladder, and preferred an instrument rather under than over size, regarding the danger from contusion of the parts in extracting a large calculus as less than that of hemorrhage from a free incision. He was an expert operator but rather cautious than bold, and conservative rather than adventurous; not inclining at all to operate in doubtful cases. His confidence was great in the constitutional treatment of patients about to be submitted to the knife, and his remarkable success he always attributed more to the care with which he prepared his subjects for operations than to his superior skill in operating.

It was not until Dr. Dudley had been many years a leading teacher that he became known as a writer. It is doubtful in fact whether he would ever have written at all but for the appearance of a journal of medicine under the auspices of Transylvania University. He had no taste for writing, and but little leisure. The Transylvania Journal of Medicine was issued on the 1st of February, 1828, edited by Professors

Cooke and Short, and through their influence Dr. Dudley was induced to prepare a paper on injuries of the head. This remarkable paper forms the first article in the first number of that journal. Seldom has an article appeared in modern times setting forth more original views. By a number of cases he showed that epilepsy is frequently caused by pressure on the brain, resulting from fractures of the cranium, and is curable by trephining. Five epileptics were operated upon, and three out of the five were relieved; while the other two were much benefited by the operation. Spicula of bone in some instances were found growing from the seat of the fracture and penetrating far into the brain. The sense of relief experienced by some of the patients was immediate, and in some of them there was no recurrence of the convulsions after the bone was removed. Dr. Dudley always and justly referred to his operation of trephining for epilepsy as constituting a new era in surgery.

But another lesson of the greatest value was communicated in this paper, in illustration of which other striking cases are reported. They relate to the treatment of *fungus cerebri*. In one of his cases a brick-mason had his head extensively fractured by a piece of falling timber. The depression was so great that the surgeon thought he might have buried his forearm in the cranium. At the conclusion of the third week a fungus of frightful magnitude was detected growing up from the brain. For this formidable growth Dr. Dudley adopted graduated pressure. Dry sponge was placed on the fungus, and bound as close as the feelings of the patient would permit. By imbibing moisture the sponge exerted increased pressure. On removing the dressings he had satisfactory evidence of the efficacy of the remedy, but it was discovered that the fungus had shot branches into the sponge. To prevent this subsequently a piece of thin muslin was interposed, and the patient recovered fully. And, what was remarkable, he showed on recovery a decided increase of

intellect, which continued, however, for only a few years. In the end he became epileptic, and thirteen years after receiving the injury was nearly fatuous. Dr. Dudley, in connection with this case, remarks that he has cured *fungus cerebri* by the use of dry sponge in five days.

His second paper appeared in the following number of the same journal. The subject is hydrocele, in which he proposed a new operation: a free incision into the tunica vaginalis, the introduction of a tent, and exsection of the preternatural sac, if one is found to exist. In the fourth number he commenced an elaborate article on the bandage, which is continued through three successive numbers. In the fifth volume he reports a case of epilepsy successfully treated by the trephine. His next paper appeared in the ninth volume, and treats of fractures, in the management of which he shows the great utility of the bandage. His last paper was on the nature and treatment of calculous diseases, and was published in the same volume of that journal. It is rich in details most interesting to the surgeon. In his first case he found it necessary to apply a ligature to the transverse perineal artery, on account of its unusual size. Of one hundred and forty-five patients who, up to the time at which he wrote, had applied to him, he operated upon all but ten. In one case, when his patient was on the table before his class and some of his colleagues, he discovered that his accustomed operation was impracticable from deformity of the pelvis, and while his assistants were taking their positions resolved to make the external incision transverse, which was executed before any one else present had remarked the difficulty.

This is the sum of Dr. Dudley's contributions to medical literature. He meditated other papers, but never found time to prepare them. It was once said of him by a colleague, who greatly admired him both as a surgeon and a teacher, that "his Hippocrene soon ran dry." From the turn of his mind and the nature of his studies this was necessarily so. He

wrote only on subjects purely practical; and where his experience ceased, there he stopped. But if the stream which flowed from his pen was not an abounding river, it was a Vauclusa fountain which has arrested the attention of surgeons everywhere, and by the banks of which students of surgery still love to linger.

Dr. Dudley was married on the 9th of June, 1821, to Miss Anna Maria Short, daughter of Major Peyton Short, and sister of the late Prof. Charles W. Short. This estimable lady died young, leaving him two sons and a daughter: the present Dr. Wilkins Dudley, W. A. Dudley, Esq., and Mrs. Anna Tilford. He never married a second time. In the summer of 1848 he removed to a beautiful country residence near Lexington, and gradually withdrew from the practice of his profession. He delivered his last lecture in February, 1850, and the last entry on his books bears date April 28, 1853. He was consulted often afterward by his professional brethren, but from that time forward he never treated any patient of his own. His death took place on Thursday, the 20th of January, 1870, in the eighty-fifth year of his age.

The life of this distinguished and useful man was extended far beyond the term allotted to those who commenced life with him and were his closest friends. Of the surgeons who competed with him in early manhood, and of all those who were associated with him as teachers in the earlier organizations to which he belonged, not one now remains. He was permitted to linger on amid the scenes which had witnessed his triumphs for eighteen years after the last one of those who had officiated with him in the first medical faculty of which he was a member had passed away, and for a quarter of a century after most of his old associates were gone. His beneficent life had surrounded him by hosts of friends. In his prime he had wisely provided for an old age of infirmity, and his declining years were solaced by all the comforts that wealth and affection can supply.

Reviews.

Percussion and Auscultation as Diagnostic Aids. A Manual for Students and Practitioners of Medicine. By CARL HOPPE, Assistant Physician to the Sixth Westphalian Regiment of Infantry. Translated by C. LANE, M. D. Philadelphia: J. B. Lippincott & Co., 1869.

The appearance of this little volume strikes one at a glance as having occurred under peculiar circumstances. Far-off California utilizes and puts into our mother-tongue the researches of distant Germany. We are glad this is so, for it reminds us of the fact that science is becoming more and more catholic, and that something else besides the mere adding to their wordly possessions engages the attention of the dwellers in our modern El Dorado.

Before reading a work one naturally turns to its title-page to learn who the author is, what he has done, what are his resources, and what institutions he is connected with, where he may have studied the subject on which he writes. Our estimate of his ability to cope with his subject is naturally formed at first from these data alone. We find that Dr. Hoppe's only title is "Assistant Physician to the Sixth Regiment;" and apart from the examination of recruits and an occasional soldier laboring under acute disease, we should imagine a regiment would afford but slender data to write authoritatively upon the topics which our author has chosen.

We have space to do little more than merely refer to some of the prominent points in this production, of which we must say that its sentences are obscurely constructed, its language too technical, and its propositions badly handled. This,

however, may arise not so much from any imperfections in the original Teutonic as from an imperfect translation. Instead of pursuing the usual course by giving a few preliminary remarks, the author plunges immediately into his subject, with the error common to many writers of supposing that every one knows as much as he does. His remarks on percussion are very difficult of comprehension, not at all practical, and embody, it appears to us, but a disquisition on acoustics. Far from being adapted to a student or beginner, they would be found obscure by an adept in the art. Every one should have some general knowledge of acoustic laws before beginning the study of physical diagnosis; but one tires with so much of them at a time. How few, for instance, who can understand the meaning of the terms "percussing is an iambic measure;" or, when speaking of the heart-sounds, "the rhythm is a trochee," and "the tone is that of an iambus."

The summing up of the views of Conradi, Piorry, and the Vienna school is expressed so obscurely that we find it difficult to tell where and how they differ, or indeed that there is any difference whatever between them.

In the section devoted to percussion we come upon the following awkward and ludicrous statement: "In normal *defecation* the left iliac region gives a deadened, high, indistinct, or uncertain tympanitic sound; but at the same time the right iliac region gives a loud, deep, distinctly tympanitic sound; in diarrhea these phenomena are reversed!"

The sections devoted to auscultation of the heart and lungs are also open to criticism: being trite, clumsy, obscure, and not at all practical. The uses of the stethoscope are thus summarily disposed of: "The stethoscope is indispensable for the examination of circumscribed points, particularly in auscultation of the heart." This is very true; but what says the author to its uses in preventing the exposure of the persons of females during physical examination of the chest; or in cases where we dislike to bring our heads in too

close proximity to the bodies of verminous or filthy patients? These matters may seem insignificant, but they are nevertheless eminently practical.

The author inculcates some very vague notions regarding the crepitant rale. It is not with him as it is with most authorities, and correctly so regarded, we think, the pathognomonic sign of pneumonia in its first stage; a fact so earnestly taught by Professor Flint. The differences between the crepitant and subcrepitant rales are not at all clearly demonstrated, while both of them are terribly mixed up with other adventitious sounds.

He gives to Wintrich the credit of having first demonstrated the mechanism of the true crepitant rale; whereas it is well known our own country has prior claim to it—a fact conclusively shown by Professor Flint in a recent article published in the New York Medical Journal.

Space will not allow a more extended notice of this *brochure*. We are sorry that we can not speak more favorably of it, but candor compels us to say that a want is not felt for such a work at present; and if it were, the production before us certainly does not meet it.

All that we could desire at present in this branch of science is fulfilled by the solid and erudite treatises of Stokes, Flint, Pollock, and Walshe, and by the plain, practical, and comprehensive manuals of Fuller, Barth and Roget, and Loomis. The publishers have executed their part in their usual attractive style.

C. R.

Transactions of the American Ophthalmological Society.

Sixth Annual Session, 1869.

The Society met at Newport, R. I., July 21st, last year; Dr. H. B. Williams, of Boston, in the presidential chair.

Dr. Green again introduced his method of treating lachrymal obstructions with leaden styles, as detailed in the last

volume of transactions. The advantage claimed is that these styles accommodate themselves to the curvatures of the nasal duct much better than those of stiffer material. The difficulty of manipulating the very flexible small sizes is obviated by making them tubular, and inserting a fine steel wire, which is withdrawn after the introduction of the style. Dr. Green thinks that the use of styles is only required for very obstinate cases, and that the admirable method of Bowman, by the intermittent use of probes, is preferable to all other plans in the majority of cases. We agree with Dr. Green.

Dr. Loring, of New York, presents an admirable article on relative accommodation in strabismus. Its length precludes a *résumé*, but a few points can be profitably noticed.

A change in accommodation is associated with a relative change in convergence, and *vice versa*. Upon this law is founded the fact that, although tenotomy may produce a good cosmetic result in convergent strabismus, perfect binocular vision is rarely ever obtained by that alone. Von Graefe asserts that tenotomy of the internus displaces the relative accommodation toward the near point, since more tension is required of the shortened muscle. Dr. Loring differs on the ground that this seeming necessity for increase of tension, in producing a certain convergence, is more or less counterbalanced by loss of antagonistic power of the lengthened externus. Hence it may readily be perceived that, although tenotomy may change the convergence, the relative accommodation may remain unchanged. Moreover, in cases where there is idiopathic weakness of the externus, the relative tension of the two antagonist muscles may be so changed by the tenotomy of the internus as to absolutely lessen the tension on the internus to zero even, as far as its limit of relation with accommodation is concerned; and the relative accommodation may be displaced even to the far point. In other words, when the eye converges upon the near point, the accommodation is arranged for distant vision. Dr. Loring cites

a case of this sort where after tenotomy the accommodation was entirely annulled; a condition making necessary for near vision convexes which entirely replaced all accommodative action. Before operating in any case of strabismus endeavor to reduce as far as possible the defect in refraction, in order to lessen the abnormal tension associated with excessive action of the ciliary muscle. This is done by the use of proper corrective glasses. In accomplishing this the necessity for repeated tenotomy is obviated in many cases. Again, after the operation, the existing state of refraction should be considered, and proper glasses applied at once. So varying are the effects of the relative accommodation from the operation that no previous data are reliable. In certain cases the strong glasses at first required may be gradually replaced by weaker until the relation of accommodation and convergence is brought as nearly as possible to a normal state. In some cases we may hope to remove the strabismus without tenotomy by a persevering use of corrective glasses, prisms, etc. In all cases the maxim *treat more and operate less* should be accepted as a rule of guidance.

Dr. Loring and Dr. Noyes present new ophthalmoscopes, having in view increased facility in determining defects in refraction by the ophthalmoscopic examination. Dr. Noyes also introduces a new eye speculum, possessing many advantages, and a new knife for Graefe's linear extraction of cataract. Dr. Dyer reports several cases of fracture of the lens from hanging. It seems to occur almost uniformly. He also introduces a new apparatus for making pressure on the eyeball. It consists essentially of a cup of hard rubber or white metal, made to fit the orbital margin, with a cover of elastic rubber. It is filled with water by means of a hydrostatic tube, which by varying elevations causes varying pressure to be made on the ball through the elastic membrane. Dr. Agnew doubts the propriety of any pressure apparatus whatever, and suggests a black silk dressing after all operations, which makes

no pressure at all. Dr. Knap, of New York, states that he has observed several cases of inflammation of the middle ear from the use of Weber's nasal douche, and considers its use a very objectionable plan of treatment.

J. G. R.

[The dressing proposed by Dr. Agnew strikes us as so simple, and altogether so excellent, that we give elsewhere a cut, which explains its application.—D. W. Y.]

Sleep and its Derangements. By WILLIAM A. HAMMOND, M. D., Professor of Diseases of the Mind and Nervous System and of Clinical Medicine in the Bellevue Hospital Medical College, late Surgeon-General United States Army, etc. Philadelphia: J. B. Lippincott & Co., 1869. Pages 318.

This is an interesting book upon the physiology and pathology of one of the most interesting phases of our existence:

*"Sleep, that knits up the raveled sleeve of care,
The death of each day's life, sore labor's bath,
Balm of hurt minds, great nature's second course,
Chief nourisher in life's feast."*

It is an extension of journal articles and essays originally published by the author, in which an entire new doctrine as to the circulation of the brain during sleep was promulgated. The second chapter of this work, on the "Causes of Sleep," contains this doctrine. In it are given extracts from leading physiologists and medical writers to show that the opinion has heretofore been that during sleep there is an increased quantity of blood in the brain; a state of congestion, either active or passive; and also experiments and arguments to prove that "sleep is directly caused by the circulation of a less quantity of blood through the cerebral tissues than traverses them while they are awake." The author is deserving of credit for promulgating and establishing this important truth, but he accords to Mr. Durham, of Guy's Hospital, priority of publication.

Chapters follow upon the state of the mind during sleep, the physiology of dreams, morbid dreams, somnambulism, and some other kindred subjects. We regret not to find the subject of artificial somnambulism, "hypnotism," or "mesmerism," considered—subjects which the author is eminently qualified to discuss.

We found a point briefly touched upon in the pathology of dreams which interested us strongly, because we had never seen the subject mentioned before, while it has been for years a matter of personal experience. We allude to hallucinations which occur in the transition period between waking and sleeping, and which have been termed by M. Maury "hypnagogic hallucinations." The author has met with two cases, and they seemed brought about by "any cause which increased the quantity of blood in the brain, or retarded the flow from the organ," as a mild stimulant or opiate. In our own case we believe an irritated or worried condition of mind to be the most effective cause, although we have not observed them closely in respect to cause. They are by no means nightly visitors, weeks sometimes elapsing between their appearance. They always consist of human faces, which come into the field of vision with the most striking vividness, fade gradually away, and change into all sorts of grotesque countenances. We have amused ourselves by watching the fantastic transformations, following them even into a condition which seems as if it *must* be perfect wakefulness, with the face in full sight, and have done this over and over again, but have never mentioned it to any one, and confess that until we read the extracts from Maury, published in this work, did not know that it had been observed by others.

The chapters upon wakefulness are of great practical interest to the physician, and he will find the author, in the chapter on treatment, a valuable guide, various remedies being advised for varying conditions, according to both the teachings of science and the dictates of common sense.

The bromide of potassium we should of course expect to find frequently prescribed, and it is so. For wakefulness it is said to occupy the first place, oxide of zinc alone ranking near it. In somnambulism he has used it in two cases with entire success. He has also used it successfully in nightmare. "Perhaps no one medicine is so uniformly successful in the ordinary forms of nightmare as the bromide of potassium, administered in doses of from twenty to forty grains three times a day. I have seen a number of cases which had resisted all hygienic measures and the simple removal of the apparent cause yield to a few doses of this remedy."

As to the power of this remedy to lessen the amount of blood in the brain, according to the author of course a *sine qua non* of sleep, he says: "I have administered it to dogs, whose brains had been exposed to view by trephining the skull, and I have invariably found it to lessen the quantity of blood circulating within the cranium, and to produce a shrinking of the brain from this cause."

Altogether, we commend the work to our readers as one in which they will find the greater part of what is given in the larger works on physiology on the subject of sleep, with much that is new, both selected and original. J. C. R.

Manual of Hypodermic Medication. By ROBERT BARTHOLOW, A. M., M. D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio, Lecturer on Clinical Medicine, and Physician to the Hospital of the Good Samaritan.

This is the title of a neat little monograph, of less than one hundred and fifty pages, just issued from the press of Lippincott & Co. In it the author gives his views and personal experience of hypodermic medication, together with the condensed knowledge of previous investigations on the subject.

Had the consideration of conia, woorara, nicotia, hydrocyanic acid, caffeine, mercury, arsenic, and irritant injections been omitted, the work, in our judgment, would have been none the less valuable. To say the least of these substances, they are all of doubtful expediency as hypodermic agents. Mercury, arsenic, and hydrocyanic acid are more safely, more agreeably, and quite as efficaciously employed otherwise. And as for conia, nicotia, and woorara, we would not advise their subcutaneous introduction except as elegant and efficient methods of murder.

Dr. Bartholow very wisely treats at considerable length of morphia and atropia, the most benign and excellent of all hypodermic agents. He also speaks well of quinia and strychnia, and under some circumstances they are unquestionably of no mean value. We think the most that can be said of physostigma, and it is saying but little, is that we have no medicine superior to it in tetanus and strychnia-poisoning.

Dr. Bartholow makes this startling statement concerning mercury: "It is obvious that in all cases in which it is desirable to use mercury the subcutaneous is the proper method for administering it. This is equally true of its use for the cure of infecting chancre as for constitutional syphilis." And this is said in the face of the indisputable facts that salivation and abscess are the frequent consequences of hypodermic mercurial injection. The author says in another place: "I have used it (mercury) with great advantage in the tertiary, but have not had the opportunity to give it sufficiently numerous and prolonged trials to enable me to pronounce as to its utility in primary and secondary syphilis."

The first of these statements is the legitimate consequence of the want of personal experience acknowledged in the second. From what we have seen of this treatment, and from what we have read of it, we do not hesitate to pronounce it the most dangerous of all the modes of adminis-

tering this potent and excellent syphilitic remedy. Most singularly, Dr. Bartholow prefers a silver to a glass syringe. With the glass instrument you see what you are doing: with a metallic one you can only presume what you are doing.

Dr. Bartholow extols the sulphate of morphia, and prefers bulky solutions. Our experience leads us to prefer the acetate of morphia; and the solution of five grains of the acetate, one drachm of distilled water, and a minimum of dilute acetic acid, recommended by Anstie, we consider the best.

Dr. Bartholow suggests the arm, calf, thigh, abdomen, and back as equally available sites for injection. Of these localities we prefer the arm. Dr. Bartholow directs attention to the marvelous difference of the hypodermic dose of atropia recommended by various writers. Trousseau advises one twelfth to one sixth of a grain; Ruppaner, one sixtieth to one thirtieth; Laurent, one twenty-fourth; Courty, one sixth. Dr. Bartholow employs one forty-eighth to one twenty-fourth. Anstie says one one-hundred-and-twentieth to one sixtieth is the proper dose, and that the sixtieth is unsafe to begin with. We have almost invariably found the last-named quantity to produce disagreeably marked effects.

The Manual of Hypodermic Medication, though by no means faultless, is a valuable and well-timed work, and one much needed in this country. It contains all that is necessary to a practical understanding of this invaluable mode of treatment, and we commend it to the profession.

L. P. V., JR.

Clinic of the Month.

A METHOD OF DRESSING EYES.—Dr. C. R. Agnew recently read before the American Ophthalmological Society a description of his method of dressing eyes after such ophthalmic operations as require rest by the exclusion of light.

The accompanying wood-cut shows the dressing. It consists first of two strips of isinglass plaster, about two and a half inches long by a quarter of an inch wide, applied over the closed eyelids to keep them shut; next, of a strip of soft thin linen or cotton



cloth in the form of a parallelogram, large enough to extend laterally beyond the temporal edges of the orbital rims, upward to clear the superciliary ridges, and downward to a horizontal line drawn through the cheek-bones; next, a piece of black silk sufficiently large to overlap all but the upper edge of the cloth; next, of some strips of isinglass plaster long enough and broad enough to attach themselves partly to the silk and partly to the contiguous skin, so as to hold the dressing in place. If the silk be so thin as to be translucent it should be made of two folds, otherwise one fold will suffice. A notch may be made in the center of the lower edge of cloth and silk, so as to permit a close coaptation between the

dressings and the skin in the angles formed by the intersection of the wings of the nostrils with the surface at the base of the upper lip. It is claimed that this dressing when carefully applied is sufficiently permeable to permit the proper escape of heat and moisture, and is yet so opaque as to shut out light, and therefore to produce natural rest for the eyes; while it is free from weight, and incapable of making any other pressure than that which the natural coaptation of the eyelids and eyeballs makes. It does away with the dangers arising from the use of pressure bandages—dangers much greater than some are now prepared to admit, but dangers proved to exist by the great variety of the bandages, and the attempt made to give formulæ for the measurement of the pressure made by a given bandage. Dr. A. believes there would be fewer eyes lost if pressure bandages were discarded and eyes kept shut and at rest for a few days after severe operations. He commonly applies this dressing immediately after an extraction, and allows it to remain five days, when it is easily detached by washing, and may be reapplied if need be. The *vis medicatrix nature* can nowhere play a more satisfactory part than in the healing of eye-wounds. To this end there must be a good supply of nourishing food, excluding alcohol, excepting in cases where you wish to retard the tissue-wasting of old age. There should be rest of the wounded and fellow-eye insured by closure of eyelids and exclusion of light. There should be fresh air, influenced by the presence of sunlight, for the patient to breathe. There should be the cheerful presence of discreet attendants, not of persons given to restless meddling. (Author's pamphlet.)

GELSEMINIC ACID—GELSEMINIA.—Prof. Wormley, of the Starling Medical College, offers the above names to designate a new organic acid and an alkaloid which he recently discovered to reside in the *gelsemium sempervirens*. An intensely active poison has long been suspected in the gelsemium, but

it is believed that the alkaloid itself has for the first time been isolated in the experiments of Prof. W. Gelseminia or gelsemia, as the distinguished toxicologist proposes to call the substance, is a colorless, odorless solid, of intensely bitter taste, and is a powerful poison: one eighth of a grain given hypodermically to a cat having caused death in ninety minutes. It can now be understood how fatal consequences have sometimes followed the administration of the fluid extract or concentrated tincture of the gelsemium. (American Journal of Pharmacy.)

SCABIES.—E. Wilson says the itch may be cured with a word, and that word is *sulphur*. Rub a little sulphur ointment, made fragrant by the addition of oil of chamomile, thoroughly into the hands night and morning, and wash the rest of the body with sulphur soap, and at the end of a few days the cure is complete, and with a sound skin. Where the use of the sulphur ointment in the morning would be inconvenient use dry sulphur instead. And, besides the cure, the patient is saved the danger of communicating infection from the first moment of applying the remedy. (Journal of Cutaneous Medicine, etc., January 7th.)

ECZEMA.—Mr. Milton states that the remedies which have succeeded best in his hands in eczematous affections are: 1. A saline aperient containing magnesia, preceded by a dose of mercury, two or three times a week. 2. An astringent, accompanied by an occasional aperient or by an alterative. When appetite is bad use a mineral acid, such as the nitric or nitro-muriatic, in tolerably large doses, in some bitter tincture or infusion. Drachm doses of tincture of calumba and ounce doses of infusion of quassia are equal to any other combination. But these remedies only improve the appetite and health; they exercise little control over the eczema. 3. A course of steel. When the discharge is pro-

fuse, when even in the dry form it has existed for years, and in all cases when improvement has come to a stand-still, I would advise a course of steel, a remedy which has proved of more use against eczema under these several circumstances than any other I have tried. Good steel wine, in doses of one or two drachms, two or three times daily, will cure most cases of eczema during the first year or two of life. From the age of puberty the tincture is to be preferred, but it must be properly made, and given in pretty large doses, and for some time. It is of no use prescribing fifteen or twenty drops for two or three weeks; as well not give it at all. The patient, if an adult, should begin with half-drachm doses at least, and increase this as rapidly as ever he can to a full drachm, beyond which it is rarely requisite to go. The dose should be measured out in a minim glass; for, as a drachm is equivalent to quite a hundred and thirty drops, the surgeon who prescribes a certain number of drops is evidently not giving the quantity he wishes to give. The constipation which generally accompanies its use may be easily remedied by the occasional use of a mild pill, *which should, however, always contain aloes*. But in some cases improvement seems to cease without any manifest cause, while the patient is taking the steel with every possible precaution, and an unmistakable relapse ensues. In this case abandon the steel for a week or two, purge the bowels well, and then resume the steel *in increased doses*. 4. A course of arsenic, aided occasionally by cod-liver oil and an alterative preparation of mercury. When the skin is simply red and tender, with a quick reproduction of unhealthy cuticle or scales, it is often of great benefit. Should, however, the surgeon only see the patient first of all at this stage, and ascertain that he has not taken steel, then I would suggest that the patient should either go through a short course of steel, or that this medicine should be combined with the arsenic; for, though the statement may excite skepticism, I

feel justified in saying that many patients bear arsenic decidedly better after a course of steel. 5. Cod-liver oil: perhaps it would hardly be going too far to say that every chronic case is more or less benefited by it, if taken long enough and in a proper way. In some stubborn cases which resist all these remedies a course of mercury will often effect a cure. The biniodide and bichloride of mercury are the most powerful of the salts of this class. I have given young boys and girls a sixth of a grain daily with the best results. (*Ibid.*)

TURPENTINE IN RINGWORM.—Von Erlach and Lucke recommend spirits of turpentine, brushed over the surface, as a remedy in common ringworm. (*Ibid.*)

MALIGNANT PUSTULE.—Dr. Caspar attaches no importance to local treatment in this affection, but relies on the internal administration of liquor ammoniæ, in small doses, every hour, day and night. Has had only one fatal case in several hundred treated. (*Ibid.*)

PHIMOSIS TREATED BY SUDDEN DILATATION.—Mr. Cruise, Dublin, advocates sudden dilatation for the cure of phimosis. He thinks the method efficient, safe, and ready. Its success depends on the circumstance that the contraction is usually situated in the *mucous membrane of the prepuce, just at its junction with the skin*. Accordingly, when this contracted point is forcibly opened, the mucous membrane *tears up*, while the skin expands. The operation may be performed with the common dressing-forceps, but Dr. C. has designed one which he prefers. This method is best suited to cases of simple, uncomplicated phimosis; is less successful when the parts are indurated or matted from inflammation. It is requisite to dilate *fully*. The foreskin should be kept retracted for twenty-four or forty-eight hours after the operation. (See Dublin Quarterly Journal Medical Science.)

VARICOCELE.—Mr. Morgan, Professor of Descriptive and Surgical Anatomy, R. C. S. I., states that he has obtained most satisfactory results in the management of varicocele and orchitis by a plan of suspension of the parts, which supports equally the testicle and the distended veins, and thus allows an easy suspension of the organ, it acting as an elastic stocking on the leg. It brings the veins into an inverted position, and directly relieves them from over-distension, and the blood current is more materially and effectually regulated by doubling the vessels as it were round the inguinal ring. The "suspender" consists of a piece of web about three and a half inches wide at one end, four and a half inches long, four inches wide at the other, and cut gradually tapering to the narrower end. A piece of thick lead wire is stitched in the rim of the smaller end, and the sides are furnished with neat hooks, a lace, and a good tongue of chamois leather, two tapes being sewn along the entire length of the web, which are afterward attached to the suspending belt. The application is easily made by the patient in the morning before rising, and when the parts are relaxed, laying the affected organ, while in the dependent position, in the "suspender," and lacing up the hooks with a moderate degree of tightness, then raising it up and attaching the tapes to the suspending belt previous to rising from bed. The measurements given above will suit the majority of cases. The lead wire at the lower end gives a foundation to the general means of support, and keeps the testis within the "suspender." The bag should be removed at night, and to avoid chafing should not be worn constantly at first during the day. In acute orchitis the "suspender" often gives immediate relief, the testis being first enveloped with lint steeped in laudanum. (*Ibid.*)

ANTIZIMOTIC TREATMENT OF SYPHILIS.—The same surgeon recommends creosote in cases of syphilis where mercury is contra-indicated, and says the earlier the stage of eruption

or other manifestation the more favorable will it be for this mode of treatment. In some instances of roseola the effect was very rapid and decisive. The formula Mr. M. found convenient was—

R—Creosote, fʒss; Mucilage, fʒj; Laudanum, fʒss; Peppermint-water, fʒvij. M. Dose, half an ounce four times a day.

Use at the same time a warm bath every second night containing two or three drachms of carbolic acid.

Syphilis in Children.—So long as the affection is confined to the surface, and there is no internal deposit, mercury, gently used, acts almost as a specific, and without any ill effects whatever. Chlorate of potash has succeeded in no case, creosote in some. (*Ibid.*)

CLUB-FOOT TREATED BY DIRECT EXTENSION.—It has become so much the fashion of very late years to decry tenotomy in talipes that it is pleasant to hear a first-rate surgeon advocate "a full division of all the tendons engaged." Jolliffe Taffnell, F. R. S., Dublin, practices the necessary tenotomy, applies adhesive strips to the limb, as Dr. Gross first recommended in fractures of the thigh, places the foot in a simple iron splint, and draws the heel down and fixes it by means of the plaster, knotted under the foot-piece. He esteems this method extremely efficient—greatly superior to any other. (*Ibid.*)

CARBOLIC ACID.—Dr. Caniff, Professor of Surgery, Toronto, Canada, in a paper recently read before the Canadian Institute on the merits of carbolic acid, submits that if Mr. Lister would still further dilute the antiseptic lotion until the amount of carbolic acid was infinitesimal, but continue to apply the *wash*, he will find even greater success. Dr. Caniff asserts that it is the *washing* that does good. (Canada Medical Journal.)

AFTER-DRESSING OF FISTULA IN ANO.—Prof. Chisholm, University of Maryland, advises, instead of the annoying and painful dressing generally used in anal fistula after its division, to make a single thorough application of the liquid persulphate or perchloride of iron, bringing the styptic by means of a brush or mop in contact with the entire surface. Beyond this immediate and single application no further local treatment will be required. (Baltimore Medical Journal.)

PREMATURELY-DELIVERED CHILDREN.—Prof. T. Gaillard Thomas, in a paper read before the Medical Society of New York, says one reason for the mortality of premature children is to be found in their inefficient heat-making powers. To the body of the premature child extraneous heat must be added to keep it from dying of cold. Do not allow a prematurely-delivered child to be washed for a week or more, and always keep it during that time in a temperature of from ninety to ninety-five degrees. It is difficult to do this unless every preparation be systematically made beforehand. The plan which Prof. T. follows consists in having a tin tub placed within one of larger dimensions, so that from three to four inches may everywhere intervene between the walls of the two. At the upper portion of the piece of tin which holds them together a funnel is fixed, and at the lower a spigot. Into the former hot water is occasionally poured; and when renewal is necessary, this is allowed to flow away from the latter. In the inner tub a large supply of cotton or wool is placed, and in this the child is enveloped and constantly kept until all fear as to its power of generating sufficient animal heat has passed away. Within this receptacle hangs a thermometer which indicates the temperature. No difference should be made in the management of the child in the hottest part of the summer. Even if the thermometer ranges at ninety-five degrees in the room these precautions are essential. Where it is not convenient to obtain anything else, an

ordinary basket, with bottles of hot water laid in the bottom, and filled with cotton or wool, will answer the purpose of keeping the child warm. But the prognosis as to the child must always be governed by its intra-uterine age. Little hope should be entertained if the delivery be brought on at or just after the seventh month; almost none should be indulged in before the seventh month; while a child delivered at or after the eighth month, provided its vital forces have not been depreciated by the abnormal state which has necessitated delivery, has, with proper management, almost as good a prospect of life as one arrived at a full term. (See New York Medical Journal.)

CHOREA.—Prof. Hammond prescribed to a young lady with this affection fifteen grains hydrate of chloral three times a day. Was more quiet after third dose; in six days was entirely relieved. A boy with chorea got ten grains three times daily. No effect. Increased doses to fifteen grains. Continued these five days without other effect than exciting drowsiness; then gave thirty grains four times a day, which made the patient sleep all night and a good deal through the day, but did not influence the muscular agitation. Remedy abandoned. Prof. H. has used it with decided benefit in a case of muscular tremor, simulating paralysis agitans, and in two cases of neuralgia. He concludes with the remark that he is satisfied that hydrate of chloral is a remedy of real value in a number of diseases of the nervous system. (*Ibid.*)

HYDRATE OF CHLORAL.—Prof. W. A. Hammond, in a very interesting communication, says the first effect of hydrate of chloral is to cause congestion of the cerebral blood-vessels, and subsequently induce the very opposite condition. Small doses produce the first, large doses the latter state. A strong man with acute mania, quiet and not very irrational at the time, got five grains hypodermically. He very soon became furi-

ously excited, broke away from his attendants, rushed into the street, ran nearly a mile, and remained highly maniacal for several hours. The next day he had twenty grains hypodermically. He fell asleep in forty minutes after, and slept for ten hours. He had not previously slept for eleven days. He awoke free from delusions, and altogether better than he had been for several weeks. Forty grains of hydrate of chloral were administered to a gentleman suffering from cerebral hyperæmia and wakefulness, who had slept none the night before, and only about two hours a night for several weeks. In half an hour he was asleep, and slept soundly for nearly twelve hours. Other cases almost similar in character and results are given. (*Ibid.*)

TREATMENT OF CARBUNCLE.—Dr. J. G. Glover advises to dilute the turpentine ointment of the pharmacopœia one half with lard or spermaceti ointment. Apply this instead of linseed poultices on lint over the carbuncle, and cover it with cotton. Change dressing twice or thrice a day, according to amount of discharge, etc. Give quinine, two grains or so, and muriate tincture of iron, ten or fifteen minims, three times a day; and secure sleep and ease by opium. I have found one grain at night sufficient. Neither stuff patient with food nor heat him with stimulants. Order good and nourishing but entirely simple diet. Allow beef tea or milk *ad libitum*, and give a glass or two of wine in the day. Have found this treatment superior to any other. (See Practitioner, January, 1870.)

Notes and Queries.

COLCHICUM IN RHEUMATISM.—The following comes from an eminent practitioner in Murfreesboro, Tenn.: "I read Dr. Moorman's article, in the February number of the American Practitioner, on rheumatism with interest. If he will add to his alkaline treatment that old remedy, colchicum, three times a day, in strictly therapeutic doses, and never allow either cotton or linen cloths to come in contact with the patient, and guard the surface against cool air in raising the bed-clothes, etc., he will, in my opinion, have attained to the perfection of treatment, and rarely, if ever, have heart complications."

DOSES OF MEDICINES.—The following rule for obtaining the proportionate doses of medicines for all ages under adult life was recently prepared by a physician in this city: Divide the number of the following birthdays by twenty-four. For one year, $\frac{2}{24} = \frac{1}{12}$; for two years, $\frac{3}{24} = \frac{1}{8}$; for three years, $\frac{4}{24} = \frac{1}{6}$; for five years, $\frac{6}{24} = \frac{1}{4}$. The above rule is simple, and more comprehensive than the one proposed by Dr. Young, which has been so long in use, and more closely approximates to the series of fractions given by Gaubius.

FLUID EXTRACT GELSEMIUM IN HEADACHE.—Dr. T. M. Woodson, of Tennessee, a practitioner of very large experience, writes: "I was deeply interested in the article on bromide of potassium in headache, in the February number of the American Practitioner. I well remember how the author used to suffer. I too have myself been almost as great a

sufferer as he was. For a year past, however, I have derived great relief from the bromide of potassium, more indeed than from any single remedy; but I have usually taken it along with the fluid extract of gelsemium. These remedies in combination have seemed to me of especial efficacy in the neuralgic headaches of females, particularly where opium was not borne well."

HYDRATE OF CHLORAL IN TETANOID HYSTERIA.—The following case, which recently occurred in this city, affords an illustration of the manner in which the laughing-gas and the hydrate of chloral sometimes act. Mrs. H. J. took nitrous oxide gas, for the extraction of a tooth, at twelve o'clock M., February 3d. Shortly after the operation she was seized with severe spasms of the muscles of the back, and at times of the extremities. The head was drawn back, and the whole body curved as in opisthotonus. The spasms were paroxysmal, with brief intervals of relief. Dr. S. B. Mills saw the case, and ordered bromide of potassium, morphia, and chloroform by inhalation. Treatment procured some remission of symptoms and sleep for a portion of the night. Spasms returned at nine A.M. of the 4th with increased violence; trismus being now present, with rigidity of muscles of abdomen and chest. Chloroform, sulphate of morphia, and bromide of potassium continued, with but little effect. The case now assuming so much the appearance of tetanus, it was determined to give sulphate atropia, one thirty-second of a grain hypodermically, and one sixty-fourth of a grain by the mouth, every hour. Quietude ensued for a short time. Got two doses of atropia by the mouth; vomited last dose. Three o'clock P.M., repeated hypodermic injection of atropia; pupils slightly dilated. Four o'clock, one grain morphia was given by the mouth. At five o'clock spasmodic symptoms still urgent; thirty grains of hydrate of chloral were ordered, to be repeated every hour until quietude of spasms and sleep

were produced. In a few minutes patient was asleep, and slept soundly for nearly five hours. Upon awaking spasms returned, with much less violence and at longer intervals. Chloral repeated until three doses were given, when vomiting occurred, and patient refused to take it. From this time patient grew gradually better, and with two hot baths and a little other medicine, was convalescent on the 7th.

This case is instructive in several particulars. It was a case of tetanoid hysteria, following the administration of pure nitrous oxide gas, and probably produced by the gas. The hydrate of chloral was efficient as an hypnotic and antispasmodic, in moderate doses, after chloroform, morphia, atropia, and bromide of potassium had failed to give more than partial and temporary relief. Hydrate of chloral is not antagonized by morphia, atropia, or bromide of potassium, for all of these articles were present in the blood of this patient in very large doses when the chloral was given. Hydrate of chloral has been supposed to act upon the nervous system by the disengagement of chloroform by the alkaline constituents of the blood. In this case chloroform had been freely inhaled with little effect. It is not probable that the small amount of chloroform evolved by chemical reaction in the blood from the hydrate could have acted so promptly and powerfully. Hydrate of chloral occasionally vomits.—L. R.

[To the above we may add the following: *Chronic Insomnia*.—An old man, on whom all the hypnotics had failed, got six hours' sleep after taking thirty grains hydrate of chloral. The next night repeated the medicine, but it produced violent vomiting, and did no good. *Chorea*.—A seven-year-old girl, choreic for ten months, had iron, strychnia, chloroform, arsenic, shower-baths, etc., without effect. Took hydrate of chloral without benefit. *Cephalalgia*.—In an asthmatic, associated with the seizures, persistent, rebellious to all the usual remedies, relieved two nights successively by hydrate of chloral; produced some nausea.—ED. AM. PRAC. D. W. Y.]

IN the December number of the Western Journal of Medicine, 1869, we published the following note from a valued correspondent: failing then to find the answer to his interrogatory, we referred it to Professor Noble Butler, and we append the answer from him to our friend's note.

"MR. EDITOR: In your November number you quote from Dr. Tilt a sentence of Cicero's, as follows: '*Nescire quod antequam natus esses factum sit, id semper esse puer.*' The same quotation is used, very appropriately, by Osiander as a motto for his '*Geschichte der Entbindungskunst*,' but in a little different form: '*Nescire quid antequam natus sis, acciderit, id est semper esse puerum.*' Can you turn to the original and inform us which is the correct reading?"

"*Nescire autem quid antea quam natus sis acciderit, id est semper esse puerum.*"—*Orator ad Brutum*, 34: Nobbe's Cicero, p. 171. This is a little different from either: "*Antea quam*," not *antequam*." ("But to be ignorant of what took place before you were born is to be always a boy.")

FOREIGN BODY IN THE AIR PASSAGES.—Dr. Hargrove, of New Salem, Ind., sends the following: "In the fall of 1866 a cockle-burr was lodged in the larynx of a healthy girl of eighteen. The first violent symptoms subsiding, no serious trouble ensued until February, 1869, when acute pneumonia of the right lung was developed. The statement of the patient that the burr was still lodged in her larynx was at first discredited, but cough and pain in that situation remaining so persistent, an operation was subsequently advised. This was declined. A second attack of pneumonia occurred in June. She stated that two months previous the burr had dropped to a point corresponding with the right bronchus. Though movable, attempts to expel it by coughing, assisted by gravitation, were fruitless. A final attack followed in July, death occurring on the twenty-fifth of that month. The patient during all these intervals was well enough to follow her occupation, that of a servant. A post-mortem examina-

tion showed red hepatization of the left lung posteriorly; the right lung firmly adherent, with gray hepatization below, pulpy and frangible above; abscesses on the surface. The burr was found in the right bronchus, perfectly preserved, with its sharp points not covered by mucus. The mucous membrane opposite the point of contact was thickened, but not ulcerated. The interest of the case lies in the extraordinary length of time the burr remained in the bronchia without developing fatal inflammation."

A NEW EXTENDING BAND FOR FRACTURES.—Dr. Cowling, of this city, says: "The gaiter and handkerchief have been so thoroughly replaced by the adhesive strips for purposes of extension, that little favor need be expected for any similar method. The following simple plan, however, illustrated in the accompanying wood-cut, may sometimes be adopted, either for temporary purposes or when the fracture is too low down to admit of the proper application of the strips. Padding, if necessary, will prevent chafing, and pressure being equally distributed on heel and instep, there is no constriction. It does not interfere with the application of the roller. *Method.*—Apply the middle of a double-headed roller, five feet long and two inches wide, to the sole of the foot. Make the figure-of-eight across the instep and around the ankle, and slip the ends of the bandage under the corresponding turns at the side of the foot.



THE SKUNK IN ASTHMA.—The following extract from a letter lately received makes mention of an addition to the *materia medica*: "Dr. P., of Lawrenceburg, Indiana, some forty years ago related to me, among other incidents of early frontier life on the Ohio, his experience of a novel remedy involuntarily taken. The doctor had from childhood been a martyr to asthma; it was the rock ahead for which he was continually on the lookout. One day—it must now be near seventy years ago—in traveling the rounds of a country practice, and while yet at a distance from any shelter, a storm of rain burst suddenly upon him. He rode at full speed for the nearest cabin, distant some miles, and reaching there, drenched to the skin and gasping for breath, he dismounted and made the best of his way to the door. As he entered he met the inmates of the cabin rushing pell-mell out in the rain, holding their noses, and giving expression in every possible way to the most extreme disgust. He was not long in discovering the cause for their actions. The dogs had chased a polecat under the floor, and the whole atmosphere was loaded with its horrible effluvium. It was a choice between polecat and asthma, and Dr. P. chose the former and remained in the house. To his surprise the constriction of his chest began to disappear with the first inhalation, and in ten minutes he was free from every trace of the paroxysm. As soon as he could do so he procured the musk-bag of one of the animals, and prepared an alcoholic tincture. The scent of this never failed to avert promptly a paroxysm of the disease, and ultimately the remedy, or time, or both combined, effected a permanent cure. He assured me also that he had successfully used it in cases similar to his own. Belonging, as it does, to the same class with musk and castor, but infinitely more active and efficient if its odor be taken as a criterion of power, it may prove a valuable antispasmodic. I have seen cases of hysteria upon which, from a safe distance, I should have been delighted to witness a trial of its powers."

A DOUBLE FORCEPS FOR FIXING THE EYE.—The accompanying wood-cut represents an instrument of full size, devised by Dr. D. S. Reynolds, of this city, for the purpose of maintaining the globe in a *fixed position*, which is especially important in extractions and in most operations upon the eyeball. Dr. R. states that the instrument gives the operator a control over the movements of the globe just double that of the ordinary forceps, since it holds the organ at two points instead of one. He thinks that many of the more difficult operations upon the eye are rendered comparatively simple and easy of execution by the use of his forceps. He has used them in several iridectomys recently, and believes they materially facilitated the operation. By measuring the size of the globe of a large number of eyes he thinks the distance between the two prongs of the instrument may be taken as the average, and that therefore it will be found applicable alike to the eyes of adults and children. They may be obtained of Mr. Siegel, instrument-maker, Louisville.



TREATMENT OF CROUP.—Dr. Fabius, of Amsterdam, employs neither antimony, calomel, nor blood-letting in croup. The chief object is to avoid debilitating remedies as far as possible. Ipecac is as good an emetic as antimony; other purges are equally efficacious with calomel; bleedings are unnecessary. An emetic, a warm poultice to the neck, and a quantity of warm steam in the room, are his “abortive” measures.

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* Any of these works may be procured by application to Messrs. John P. Morton and Company, Louisville, Ky.